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Flying Operations

**FLIGHT TEST AIRCREW EVALUATION
CRITERIA**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It applies to all AFMC units and AFMC gained flying units and personnel. It does not apply to Air National Guard units. Field units below MAJCOM level will forward copies of their proposed supplements to this publication to AFMC/DOV for review and approval. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.2 of this instruction for guidance on submitting comments and suggesting improvements to this publication. This instruction is affected by the Paperwork Reduction Act as amended in 1996.

The Privacy Act of 1974 affects this instruction. The Privacy Act System Number F011 AF XO A, Air Force Operations Resource Management Systems (AFORMS) covers required information. The authority for maintenance of the system is Title 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), and Executive Order 9397.

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Chapter 1

GENERAL INFORMATION

1.1. General. All evaluations will be conducted IAW the provisions of AFI 11-202, Volume 2 and this instruction. Information gathering documents will be established as forms in accordance with AFI 37-160, Volume 8, *The Air Force Publications and Forms Management Program – Developing and Processing Forms*.

1.2. Recommended Changes/Waivers. Recommendations for improvements to this instruction will be submitted on AF Form 847, **Recommendation for Change of Publication**, to AFMC/DOV. IAW AFD 11-2, AF/XO is approval authority for interim changes/revisions to this instruction. Waiver authority for this instruction is AFMC/DO. Waivers will be requested through AFMC/DOV IAW MAJCOM guidance. Copies of waiver requests do not need to be forwarded to AF/XOOT.

1.3. Procedures:

1.3.1. Stan/Eval Flight Examiners (SEFE) will use the evaluation criteria contained in Attachments 1, 2, and 3 for conducting all flight evaluations and paragraph 1.5 for all emergency procedures evaluations. To ensure standard and objective evaluations, SEFEs will be thoroughly familiar with the prescribed evaluation criteria.

1.3.2. Unless specified, the examinee or SEFE may fly in any flight position (to include chase) which will best enable the SEFE to conduct a thorough evaluation.

1.3.3. The SEFE will brief the examinee on the purpose of the evaluation and how it will be conducted prior to flight. The examinee will accomplish required flight planning in accordance with the flight position during the evaluation. Flight Examiners will be furnished a copy of necessary mission data, and mission materials.

1.3.4. The SEFE will thoroughly debrief all aspects of the flight. This debrief will include the examinee's overall rating, specific deviations, area grades assigned (if other than qualified) and any required additional training.

1.4. Grading Instructions. Standards and performance parameters are contained in AFI 11-202, Vol 2 and this instruction.

1.4.1. The SEFE will evaluate flight parameters based on conditions of smooth air and a stable aircraft. Do not consider momentary deviations from tolerances, provided the examinee applies prompt corrective action and such deviations do not jeopardize flying safety. The SEFE will consider cumulative deviations when determining the overall grade.

1.4.2. The SEFE will evaluate each area accomplished during the evaluation using the standards provided in this instruction and assign an appropriate grade for the area. Derive the overall flight evaluation grade from a composite of the area grades. SEFE judgment must be exercised when the wording of areas is subjective and when specific situations are not covered. SEFE judgment will be the determining factor in arriving at the overall grade.

1.4.3. If the examinee receives an unqualified grade in any critical area, an overall unqualified grade will be assigned.

1.4.4. The following general criteria apply during all phases of flight except as noted for specific events and on instrument final approaches:

Table 1.1. General Criteria.

		FIXED WING PILOT	HELICOPTER PILOT
Q	Altitude	+/- 200 feet	+/- 100 feet
	Airspeed	+/- 5%	+/- 10 KIAS
	Course	+/- 5 degrees/3 NM (whichever is greater)	+/- 5 degrees/3 NM (whichever is greater)
	TACAN Arc	+/- 2 NM	+/- 1 NM
Q-	Altitude	+/- 300 feet	+/- 300 feet
	Airspeed	+/- 10%	+/- 20 KIAS
	Course	+/- 10 degrees/5 NM (whichever is greater)	+/- 15 degrees
	TACAN Arc	+/- 3 NM	+/- 2 NM
U		Exceeded Q- limits	Exceeded Q- limits

1.5. Emergency Procedures Evaluation (EPE). If available and configured appropriately, an aircrew training device (ATD) will be used to conduct the requisite EPE. If an ATD is not used, the EPE will be conducted in an appropriate unit training device (UTD) or cockpit procedures trainer (CPT), in order of preference. If a CPT is not used, the EPE will be an oral evaluation.

1.5.1. The following items will be included on all emergency procedures evaluations:

1.5.1.1. Aircraft General Knowledge.

1.5.1.2. Emergency Procedures. Evaluate a minimum of two emergency procedures per phase of flight (i.e., pretakeoff, takeoff, cruise and landing). All Bold Face/CAPS will be evaluated (if applicable).

1.5.1.3. Crew Resource Management (CRM).

1.5.1.4. Unusual attitude recoveries will be evaluated IAW AFMAN 11-217, *Instrument Flight Procedures*, during all EPEs. If performed in an ATD, this fulfills the requirement for Unusual Attitude Recoveries on Pilot Instrument/Qualification evaluations.

1.5.2. The following additional items will be included on EPEs as a requisite for the instrument and/or qualification evaluation:

1.5.2.1. AFMAN 11-217. Evaluate use of standby/emergency instruments.

1.5.2.2. Alternate/Divert Airfields. Evaluate a minimum of one approach at other than home base.

1.5.3. EPE scenarios should be tailored to unit tasking and should include emergencies occurring during situations an aircrew might encounter while flying the unit's mission (FCF, WD, deliveries, etc).

1.5.4. Examinees receiving an overall unqualified grade will be placed in supervised status until a reevaluation is successfully accomplished. Examinees receiving an overall unqualified grade because

of an unsatisfactory Bold Face evaluation will not be permitted to fly in their aircrew position until a successful reevaluation is accomplished. If examinee receives a grade of qualified with additional training required for an EPE, the SEFE will indicate if the additional training will be accomplished before the flight evaluation. Additional training and reevaluations will be accomplished IAW AFI 11-202, Vol 2.

1.5.5. The following grading criteria will be used to grade individual items on EPEs:

1.5.5.1. Q. Performance is correct. Quickly recognizes and corrects errors.

1.5.5.2. Q-. Performance is safe, but indicates limited proficiency. Makes errors of omission or commission.

1.5.5.3. U. Performance is unsafe or indicates lack of knowledge or ability.

1.6. Records Disposition. Records will be disposed of IAW AFMAN 37-139, *Records Disposition Schedule*.

Chapter 2

EVALUATION REQUIREMENTS

2.1. General.

2.1.1. All evaluations will follow the guidelines set in AFI 11-202, Vol 2, Chapter 4. The procedures outlined in this chapter apply to all flying units.

2.1.2. Required evaluation areas are contained in forms specified in AFMC Supplement to AFI 11-202V2. When it is impossible to evaluate a required area in flight, it will be evaluated by an alternate method (i.e., in an UTD/ATD/CPT or by oral examination) Document the reason a required area(s) was not evaluated inflight and the alternate method of evaluation will be documented in the Comments portion of the AF Form 8, Certificate of Aircrew Qualification. If the SEFE determines the required item cannot be adequately evaluated by an alternate method, the examinee will require an additional flight to complete the evaluation.

2.1.3. Evaluate all issued flight publications for currency and accuracy on all flight evaluations. Units may specify additional publications to be evaluated in the unit supplement to AFI 11-202V2.

2.2. Instrument/Qualification Evaluation. A mission flown according to instrument flight rules (to the maximum extent practical) best fulfills the objective of the instrument/qualification evaluation. This evaluation will include approaches at airfields other than home or deployed locations if possible. This evaluation may be administered on any compatible mission with the approval of the unit Chief of Stan/Eval with Commander's concurrence.

2.2.1. Minimum ground phase requisites are Instrument Refresher Course (IRC) Training (IAW AFI 11-210, Instrument Refresher Course Program), instrument examination, closed and open book qualification examinations, EPE, and Bold Face/CAPS Written Exam. Bold Face/CAPS items must be in proper sequence but abbreviations are allowed.

2.2.2. Both a Precision Approach Radar (PAR) and an Instrument Landing System (ILS) must be evaluated if equipment and facilities are available. If facilities or equipment are not available, the flight evaluation may be completed as long as one precision approach is flown.

2.2.3. Do not perform unusual attitude recoveries in single seat aircraft. They will be evaluated during EPEs or if evaluated in dual-seat aircraft inflight, will be performed with a SEFE in the aircraft.

2.3. Qualification Evaluation. Requirements for a pilot qualification evaluation are the same as an instrument/qualification evaluation with the following exceptions:

2.3.1. No instrument approaches are required. A full flap (normal) pattern and landing is required. An emergency pattern (engine out, no flap, partial flap, SFO) as applicable is required.

2.3.2. VFR traffic patterns are required (weather permitting).

2.3.3. Minimum ground phase requisites are:

2.3.3.1. EPE

2.3.3.2. Bold Face/CAPS Written Exam. Answers must contain all Bold Face/CAPS items in proper sequence. Abbreviations are allowed.

2.3.3.3. Closed and open book examinations.

2.3.3.4. Navigators will complete IRC and the instrument exam as a requisite for the qualification evaluation.

2.4. Mission Evaluation. The requirement for a mission evaluation for AFMC aircrews is waived according to the provisions of AFI 11-202V2, Chapter 4. However, evaluators should attempt to include mission type events on a qualification evaluation. Mission type events include but aren't limited to aerobatics, confidence maneuvers, approaches to stalls, BFM, flight test techniques, formation, and basic weapons deliveries. Section F of the evaluation sheets contains four areas to be evaluated if mission type events are accomplished on a qualification evaluation.

2.5. Instructor Evaluation. Instructor evaluations will be conducted IAW AFI 11-202, Vol 2, Chapter 4. Flight evaluations will include a thorough evaluation of the examinee's instructor knowledge and ability. This is a one-time check in which the examinee must demonstrate the ability to instruct in various phases of the unit's mission. Except for requirements detailed on AFMC Evaluation Sheets, specific profiles and/or events will be determined by the SEFE. Subsequent evaluations (for example, Instrument/Qualification, Mission) will include instructor portions during the evaluations.

2.5.1. For units whose instructor pilots (IP) normally instruct from a chase aircraft, the examinee should fly a portion of the mission in the chase position, if feasible.

2.6. Pilot Evaluation Instructions. Requirements for all pilot evaluations are identified in forms as specified in AFMC Supplement to AFI 11-202V2. Fixed wing and helicopter pilots have specific section C requirements and evaluation criteria. Use forms specified in AFMC Supplement to AFI 11-202V2 for conducting all pilot evaluations.

2.7. WSO/Navigator/OSO/EWO/DSO Evaluation Instructions. Requirements for all WSO/Navigator/OSO/EWO/DSO evaluations are identified in forms specified in AFMC Supplement to AFI 11-202V2. Each crew position has specific section C requirements and evaluation criteria. Use forms specified in AFMC Supplement to AFI 11-202V2 for conducting all WSO/Navigator/OSO/EWO/DSO evaluations.

2.8. Enlisted Aircrew Evaluation Instructions. Requirements for each enlisted aircrew position are identified in forms specified in AFMC Supplement to AFI 11-202V2. Each crew position has specific section C requirements and evaluation criteria. Use forms specified in AFMC Supplement to AFI 11-202V2 for conducting all enlisted aircrew evaluations.

MARVIN R. ESMOND, Lt General, USAF
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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 11-2, *Aircraft Rules and Procedures*

AFPD 11-4, *Aviation Service*

AFI 11-2FT-Volume 1, *Training*

AFI 11-2FT-Volume 2, *Aircrew Standardization and Evaluation*

AFI 11-202V1, *Aircrew Training*

AFI 11-202V3, *General Flight Rules*

AFI 11-205, *Aircraft Cockpit and Formation Flight Signals*

AFI 11-214, *Aircrew Weapons Director, and Terminal Attack Controller Procedures for Air Operations*

AFJMAN 11-226, *US Standard for Terminal Instrument Procedures (TERPS)*

AFI 33-360V1, *Publications Management Program*

AFTTP 3-1V1, *Fighter Fundamentals*

AFTTP 3-1 V4, *Tactical Employment-- F-15*

AFTTP 3-1V5, *Tactical Employment--F-16;*

AFTTP 3-1 V17 *Tactical Employment-- F-15E,*

AFTTP 3-3V4, *Combat Aircraft Fundamentals-- F-15*

AFTTP 3-3V5, *Combat Aircraft Fundamentals--F-16;*

AFTTP 3-3V17, *Combat Aircraft Fundamentals-- F-15E*

T.O. 1-1-300, *Functional Check Flight Procedures*

T.O. 1-1C-1, *Basic Flight Crew Air Refueling Manual*

1-1C-1-34, *B-1B Flight Crew Air Refueling Procedures With KC-135 and KC-10*

AFTTP 3-3V20, *Combat Aircraft Fundamentals--B-1B.*

T.O. 1A-10A-1, *Flight Manual*

T.O. 1A-10A-34-1-1, *Weapons Delivery Manual*

AFTTP 3-1, A-10 Vol 3 (MCM 3-1), *Tactical Employment*

MCH 11-A/OA20 Vol 5, *Combat Aircraft Fundamentals—A-10.*

AFTTP 3-1V23, *B-2 Tactical Employment*

T.O. 1B-2A-1, *Flight Manual*

T.O. 1B-2A-1-2, *Supplemental Flight Manual Systems Operations*

T.O. 1B-2A-1-3, *Supplemental Flight Manual*

T.O. 1B-2A-25-1, *Nuclear Bomb Basic Information*
T.O. 1B-2A-34-2-1, *Nonnuclear Weapons Delivery Manual*
T.O. 1-1C-1-37, *B-2A Flight Crew Air Refueling Procedures*
T.O. 1B-52H-1, *Pilots Flight Manual*
T.O. 1B-52H-1-12, *Navigator & Radar Navigators Flight Manual*
T.O. 1B-52H-1-13, *EWO Flight Manual*
T.O. 1B-52H-1-13-1, *EWO Flight Manual*
AFTTP 3-1V19, *B-52 Tactical Employment*
TO 1C-5A-1, *Flight Manual*
TO 1C-5A-1-1, *Performance Manual*
T.O. 1C-12C-1, *C-12C Flight Manual*
T.O. 1C-12J-1, *C-12J Flight Manual*.
T.O. 1C-17A-6CF-1, *C-17 Functional Check Flight Procedures*
T.O. 1C-17A-1, *Flight Manual*
T.O.13C7-1-11/FM 10-501,
T.O.1F-15E-1, *Flight Manual*
T.O.1F-15E-1-1, *Performance Manual*,
T.O.1F-15E-34-1-1,
T.O.1F-15A-1, *Flight Manual*
T.O.1F-15A-34-1-1
T.O.1F-15A-34-1-2
T.O.1F-15C-34-1-1
T.O.1F-15C-34-1-3
T.O.1F-16-1, *Flight Manual*
T.O.1F-16-1-1, *Performance Manual*
T.O.1F-16-1-2
T.O.1-1C-1
T.O.1-1C-1-30
T.O. 1T-39A-1, *Flight Manual*

Abbreviations and Acronyms

A/A—Air to Air

AAI—Air to Air Intercept

AC—Aircraft Commander

ACF—Acceptance Check Flight

ACBT—Air Combat Training

ACC—Air Combat Command

ACCMAN—Air Combat Command Manual

ACCR—Air Combat Command Regulation

ADI—Attitude Director Indicator

AFFTC—Air Force Flight Test Center

AFI—Air Force Instruction

AFJI—Air Force Joint Instruction

AFM—Air Force Manual

AFMC—Air Force Materiel Command

AFMCI—Air Force Materiel Command Instruction

AFORMS—Air Force Operations Resource Management System

AFPAM—Air Force Pamphlet

AFR—Air Force Regulation

AFRC—Air Force Reserve Command

AFTO—Air Force Technical Order

AFTTP—Air Force Tactics, Techniques, and Procedures

AGL—Above Ground Level

AHC—Aircraft Handling Characteristics

AIRMET—Airman's Meteorological Information

ALTRV—Altitude Reservation

AMC—Air Mobility Command

AOA—Angle of Attack

AR—Air Refueling

ARA—Airborne Radar Approach

ARCP—Air Refueling Control Point

ARCT—Air Refueling Control Time

ARIP—Air Refueling Initial Point

ARTCC—Air Route Traffic Control Center

ASR—Airport Surveillance Radar

ATC—Air Traffic Control
ATD—Aircrew Training Device
AVTR—Aircraft Video Tape Recorder
BFM—Basic Fighter Maneuver
BMC—Basic Mission Capable
BQ—Basic Qualified
CAPS—Critical Action Procedures
CCB—Configuration Control Board
CC—Commander
CE—Combat Edge
CFL—Critical Field Length
CFP—Compatability Flight Profile
CFPS—Combat Flight Planning System
CFT—Cockpit Familiarization Trainer
CG—Center of Gravity
CHUM—Chart Update Manual
COMSEC—Communications Security
CPT—Cockpit Procedures Trainer
CRM—Crew Resource Management
CT—Continuation Training
CW—Chemical Warfare
DACT—Dissimilar Air Combat Tactics
DAFIF—Digital Aeronautical Flight Information File
DFO—Director of Flight Operations
DH—Decision Height
DMPI—Designated Mean Point of Impact
DNIF—Duties Not Including Flying
DO—Director of Operations
DOD—Department of Defense
DR—Dead Reckoning
DSO—Defensive Systems Officer
DT&E—Developmental Test and Evaluation

DZ—Drop Zone

EADI—Electronic Altitude Director Indicator

EC—Electronic Combat

ECM—Electronic Countermeasures

EEFI—Essential Elements of Friendly Information

EMCON—Emission Control

EMI—Electromagnetic Interference

EOD—Explosive Ordnance Disposal

EOR—End of Runway

EP—Evaluator Pilot

EPE—Emergency Procedures Evaluation

EPR—Exhaust Pressure Ratio

EPU—Emergency Power Unit

ESA—Emergency Safe Altitude

ETA—Expected Time of Arrival

EWO—Electronic Warfare Officer

FAA—Federal Aviation Administration

FAAH—Federal Aviation Administration Handbook

FAF—Final Approach Fix

FAR—Federal Aviation Regulation

FCF—Functional Check Flight

FCIF—Flight Crew Information File

FE—Flight Engineer

FL—Flight Level; Flight Lead

FLIP—Flight Information Publications

FM—Field Manual/Frequency Modulation

FOD—Foreign Object Damage

FSS—Flight Service Station

FTU—Formal Training Unit

FTT—Flight Test Technique

GFR—Government Flight Representative

GPS—Global Positioning System

HAA—Height Above Aerodrome

HAT—Height Above Touchdown

HDBK—Handbook

HF—High Frequency

HHQ—Higher Headquarters

HUD—Heads-up Display

IAF—Initial Approach Fix

IAW—In Accordance With

ICAO—International Civil Aviation Organization

ID—Identification

IFF—Identification Friend or Foe

IFR—Instrument Flight Rules

ILS—Instrument Landing System

IMC—Instrument Meteorological Conditions

INS—Inertia Navigation System

INU—Inertial Navigation Unit

IP—Instructor Pilot or Initial Point

IQT—Initial Qualification Training

IRC—Instrument Refresher Course

KCAS—Knots Calibrated Airspeed

KIAS—Knots Indicated Airspeed

KTAS—Knots True Airspeed

LOWAT—Low Altitude training

LASTD—Low Altitude Step Down

LPU—Life Preserver Units

LZ—Landing Zone

MAJCOM—Major Command

MAP—Missed Approach Point

MARSA—Military Assumes Responsibility for Separation of Aircraft

MC—Mission Capable/Mission Commander

MCH—Multi Command Handbook

MCM—Multi-Command Manual

MCOPR—MAJCOM Office of Primary Responsibility
MCR—Multi-Command Regulation
MDS—Mission Design Series
MDA—Minimum Descent Altitude
MEA—Minimum Enroute Altitude
MEL—Minimum Equipment List
MESP—Mission Essential Support Personnel
MIL—Military
MITO—Minimum Interval Takeoff
ML—Mission Lead
MLG—Main Landing Gear
MOA—Military Operating Area
MQT—Mission Qualification Training
MS—Mission Support
MSA—Minimum Safe Altitude
MSL—Mean Sea Level
MTR—Military Training Route
MP—Mission Pilot
MPS—Mission Planning Software/Mission Planning System
N/A—Not Applicable
NM—Nautical Miles
NMR—Non Mission Ready
NORDO—No Radio
NOTAM—Notice to Airmen
NVG—Night Vision Goggles
OFP—Operational Flight Program
OG—Operations Group
OG/CC—Operations Group Commander
ONC—Operational Navigation Charts
OPR—Office of Primary Responsibility
OPSEC—Operations Security
OSO—Offensive Systems Officer
OWS—Overload Warning System

OT&E—Operational Test and Evaluation

PAR—Precision Approach Radar

PDM—Programmed Depot Maintenance/Parachute Deployment Mechanism

PFPS—Portable Flight Planning Software

PIC—Pilot in Command

PIREP—Pilot Report (Weather)

PMSV—Pilot to Metro Service

POC—Point of Contact

RAA—Route Abort Altitude

RAPCON—Radar Approach Control

RCR—Runway Conditions Reading

RCS—Radar Cross Section

RD&E—Research Developmental Test and Evaluation

RIA—Recovery Initiation Altitude

ROE—Rules of Engagement

RNAV—Enroute Area Navigation

RPI—Rated Position Identifier

RPM—Revolutions Per Minute

RTB—Return to Base

RVR—Runway Visual Range

RWR—Radar Warning Receiver

RZ—Rendezvous

SA—Situational Awareness or Surface Attack

SAR—Search and Rescue

SARCAP—Search and Rescue Combat Air Patrol

SAT—Surface Attack Tactics

SD—Spatial Disorientation

SEFE—Stan/Eval Flight Examiner

SELO—Stan/Eval Liaison Officer

SFO—Simulated Flame Out

SIGMET—Significant Meteorological Information

SOF—Supervisor of Flying

SPINS—Special Instructions
SQ—Squadron
SRB—Safety Review Board
SSE—Simulated Single Engine
Stan Eval—Standardization & Evaluation
TACAN—Tactical Air Navigation
TAS—True Air Speed
TBD—To Be Determined/Developed
TDY—Temporary Duty
TDZ—Touch Down Zone
TERPS—Terminal Instrument Procedures
TF—Terrain Following
TOLD—Take Off Landing Data
TOT—Time Over Target
TPC—Tactical Pilotage Chart
TPS—Test Pilot School
TRB—Technical Review Board
UHF—Ultra High Frequency
UTD—Unit Training Device
VASI—Visual Approach Slope Indicator
VDP—Visual Descent Point
VOR—VHF Omni Range
VFR—Visual Flight Rules
VHF—Very High Frequency
VMC—Visual Meteorological Conditions
VR—VFR Military Training Route
VRD—Vision Restricting Device
WSO—Weapons Systems Officer
VTR—Video Tape Recorder
WST—Weapons Systems Trainer

Terms

Airlift—Aircraft is considered to be performing airlift when manifested passengers or cargo are carried.

Alternate Entry Control Point (Alternate Entry Fix)—The route point(s) upon which a control time for an alternate entry into the route is based.

Assault Landing Zone (ALZ)—A paved or semi-prepared (unpaved) airfield used to conduct operations in an airfield environment similar to forward operating locations. ALZ runways are typically shorter and narrower than standard runways.

Bingo Fuel—The computed fuel remaining at a point in flight that will allow safe return to the point of intended landing with required fuel reserve.

Circular Error Average (CEA)—Indicator of the accuracy of an airdrop operation. It is the radius of a circle within which half of the air-dropped personnel and items or material have fallen.

Critical Phase of Flight—Takeoff, low level (below MSA), airdrop, weapon delivery, air refueling, approach, and landing.

Direct Instructor Supervision—Supervision by an instructor of like specialty with immediate access to controls (for pilots, the instructor must occupy either the pilot or copilot seat).

Entry Control Time—The scheduled time over the Primary/Alternate Entry Control Point.

Familiar Field—An airport in the local flying area at which unit assigned aircraft routinely perform transition training. Each operations group commander will designate familiar fields within their local flying area.

Fix—A position determined from terrestrial, electronic, or astronomical data.

Instructor Supervision—Supervision by an instructor of like specialty (see also Direct Instructor Supervision).

Jumpmaster—The assigned airborne qualified individual who controls parachutists from the time they enter the aircraft until they exit.

Local Training Mission—A mission scheduled to originate and terminate at home station (or an off-station training mission), generated for training or evaluation and executed at the local level.

Low Altitude Navigation Leg—The route segments of a bomber IR between the TA Initiation Point and TA Termination Point. For non-bomber IR, the low altitude navigation leg is that portion of the route designed primarily for low altitude flight; does not include segments intended for descent into and climb-out from the route.

Operational Risk Management (ORM)—A logic-based common sense approach to making calculated decisions on human, material, and environmental factors before, during, and after Air Force operations. It enables commanders, functional managers and supervisors to maximize operational capabilities while minimizing risks by applying a simple systematic process appropriated for all personnel and Air Force functions.

Originating Station—Base from which an aircraft starts on an assigned mission. May or may not be the home station of the aircraft.

Over Water Flight—Any flight that exceeds power off gliding distance from land.

Training Mission—Mission executed at the unit level for the sole purpose of aircrew training for upgrade or proficiency. Does not include operational missions as defined in this AFI.

Attachment 2**PILOT EVALUATION CRITERIA****A2.1. General Grading Standards.**

A2.1.1. The grading criteria in this attachment are divided into six sections: Ground Phase, General, Qualification, Instrument, Instructor, and Mission. These areas match the graded areas for pilots found in forms specified in AFMC Supplement to AFI 11-202V2.

A2.2. Area A: Ground Phase.

A2.2.1. Area A-1: Publications.

A2.2.1.1. **Q.** Assigned flight publications were current, complete, and usable for any of the unit's tasking.

A2.2.1.2. **Q-.** Assigned flight publications contained deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.

A2.2.1.3. **U.** Contained major deviations, omissions, and/or errors which compromise safety of flight

A2.2.2. Area A-2: Emergency Procedures Evaluation.

A2.2.2.1. **Q.** Displayed correct, immediate response to Bold Face and non-Bold Face emergency situations. Effectively used checklist.

A2.2.2.2. **Q-.** Response to Bold Face emergencies 100% correct. Response to certain areas of non-Bold Face emergencies or follow-on steps to Bold Face procedures was slow/confused. Used the checklist when appropriate, but slow to locate required data.

A2.2.2.3. **U.** Incorrect response for Bold Face emergency. Unable to analyze problems or take corrective action. Did not use checklist, or lacks acceptable familiarity with its arrangement or contents.

A2.3. Area B: General.

A2.3.1. Area B-1: Safety (Critical).

A2.3.1.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

A2.3.1.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear. Operated the aircraft in a dangerous manner.

A2.3.2. Area B-2: Judgement (Critical).

A2.3.2.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

A2.3.2.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

A2.3.3. Area B-3: Flight Discipline (Critical).

A2.3.3.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

A2.3.3.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

A2.3.4. Area B-4: Briefings.

A2.3.4.1. **Q.** Presented briefing in a professional manner. Briefing was well organized and in a logical sequence. Established objectives for the mission. Effective use of training aids. Concluded briefing in time to allow for element/crew briefing (if applicable) and preflight of personal equipment, aircraft and ordnance. Flight members clearly understood mission requirements. Considered the abilities of all flight members. Briefed corrective action from previous mission and probable problem areas when appropriate.

A2.3.4.2. **Q-.** Events out of sequence, hard to follow, some redundancy. Did not make effective use of available training aids. Dwelled on non-essential mission items. Limited discussion of techniques. Did not consider all flight members' abilities. Did not identify probable problem areas.

A2.3.4.3. **U.** Confusing presentation. Did not allow time for element/crew briefing (if applicable) and preflight of personal equipment, aircraft and ordnance. Did not use training aids. Redundant throughout briefing. Lost interest of flight members. Presentation created doubts or confusion. Did not establish objectives for the mission. Omitted major training events or did not discuss techniques. Ignored flight members' abilities and past problem areas.

A2.3.5. Area B-5: Personal Equipment.

A2.3.5.1. **Q.** Thoroughly familiar with personal equipment requirements, usage, and preflight.

A2.3.5.2. **Q-.** Possessed required personal equipment items and was familiar with most of the preflight and usage procedures.

A2.3.5.3. **U.** Unfamiliar with required personal equipment preflight and usage.

A2.3.6. Area B-6: Forms, Reports, Logs.

A2.3.6.1. **Q.** Completed or supervised completion of all required forms without significant error.

A2.3.6.2. **Q-.** Completed or supervised completion of all required forms with some errors or omissions that had to be corrected.

A2.3.6.3. **U.** Forms were incomplete, improperly filled out. Data on forms inaccurate detracting from recording the mission data.

A2.3.7. Area B-7: Flight Planning.

A2.3.7.1. **Q.** Developed a sound plan to accomplish the mission. Checked all factors applicable to flight in accordance with applicable directives. Aware of alternatives available, if flight cannot be completed as planned. Read and initialed all items in the Flight Crew Information File (FCIF)/Read Files. Prepared at briefing time. Required flight publications are current.

A2.3.7.2. **Q-.** Same as above, except minor error(s) or omission(s) that did not detract from mission effectiveness. Demonstrated limited knowledge of performance capabilities or approved operating procedures/rules in some areas.

A2.3.7.3. **U.** Made major error(s) or omission(s) that would have prevented a safe or effective mission. Displayed faulty knowledge of operating data or procedures. Did not review or initial Go/No-Go items. Not prepared at briefing time.

A2.3.8. Area B-8: Use of Checklists.

A2.3.8.1. **Q.** Used current checklist and accomplished all items in proper sequence with no deviations or omissions.

A2.3.8.2. **Q-.** Only minor deviations from checklist procedures were noted.

A2.3.8.3. **U.** Failed to use current checklist or deviated from checklist procedures resulting in the mission being compromised.

A2.3.9. Area B-9: Crew Resource Management.

A2.3.9.1. **Q.** Coordinated effectively with other crewmembers/mission personnel. Effectively used all crewmembers. Gave clear, concise crew instructions.

A2.3.9.2. **Q-.** Coordinated satisfactorily with other crewmembers/mission personnel. Some instructions were not clear and concise.

A2.3.9.3. **U.** Failed to coordinate with crewmembers/mission personnel. Did not give clear and concise instructions. Failed to utilize resources causing degradation of the mission or safety of flight.

A2.3.10. Area B-10: Communication Procedures.

A2.3.10.1. **Q.** Radio and intra-cockpit communications were concise, accurate and effectively used to direct maneuvers or describe the tactical situation.

A2.3.10.2. **Q-.** Minor terminology errors or omissions occurred, but did not significantly detract from situational awareness, mutual support or mission accomplishment. Extraneous comments presented minor distractions.

A2.3.10.3. **U.** Radio communications were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from mutual support, situational awareness or mission accomplishment.

A2.3.11. Area B-11: Knowledge of Directives.

A2.3.11.1. **Q.** Demonstrated thorough knowledge of aircraft systems, limitations and performance characteristics.

A2.3.11.2. **Q-.** Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Demonstrated deficiencies either in depth of knowledge or comprehension.

A2.3.11.3. **U.** Demonstrated unsatisfactory knowledge of aircraft systems, limitations or performance characteristics.

A2.4. Area C: Qualification.

A2.4.1. Area C-1: Performance Data.

A2.4.1.1. **Q.** Accurately computed/reviewed all required takeoff and landing data. Ensured all flight members were prepared. Aware of abort considerations, runway condition, weather, impact of weather on mission accomplishment.

A2.4.1.2. **Q.** Computed/reviewed required takeoff data with minor omissions or errors which did not detract from mission accomplishment or safety.

A2.4.1.3. **U.** Major errors or omissions which compromise safety. Faulty or improper knowledge of performance data.

A2.4.2. Area C-2: Preflight Inspection.

A2.4.2.1. **Q.** Established and adhered to station, engine start, taxi and take-off times to assure thorough preflight, check of personal equipment, crew briefing, etc. Accurately determined readiness of aircraft for flight.

A2.4.2.2. **Q-.** Minor procedural deviations which did not detract from the overall mission.

A2.4.2.3. **U.** Major deviations in procedure which would preclude safe mission accomplishment. Failed to accurately determine readiness of aircraft for flight. Crew errors directly contributed to a late takeoff which degraded the mission or made it non-effective.

A2.4.3. Area C-3: Engine Start.

A2.4.3.1. **Q.** Accomplished engine start IAW flight manual procedures and checklists. Used correct hand signals.

A2.4.3.2. **Q-.** Accomplished engine start with significant omissions or deviations from flight manual checklist procedures that did not affect safety.

A2.4.3.3. **U.** Omitted required procedures. Deviations to flight manual which could potentially damage aircraft or mission equipment.

A2.4.4. Area C-4: Taxi.

A2.4.4.1. **Q.** Ensured adequate maneuvering space for aircraft. Satisfactorily used power, steering, rudder, or brakes. Taxi speed was adequate for existing conditions. Displayed satisfactory knowledge of marshaling signals.

A2.4.4.2. **Q-.** Taxi speed was erratic. Taxi was safe but overcontrolled and rough when turning or using brakes. Deviations or omissions from flight manual procedures that did not affect safety or mission accomplishment.

A2.4.4.3. **U.** Taxi speed dangerous to aircraft control or systems. Overused brakes causing hot brakes or tire damage. Intervention required to prevent further damage to aircraft.

A2.4.5. Area C-5: Takeoff.

A2.4.5.1. **Q.** Maintained smooth aircraft control throughout takeoff. Performed takeoff IAW flight manual procedures and techniques.

A2.4.5.2. **Q-.** Minor flight manual procedural or technique deviations. Control was rough or erratic.

A2.4.5.3. **U-.** Takeoff potentially dangerous. Exceeded aircraft systems limitations. Raised gear too early/late. Failed to establish proper climb attitude. Overcontrolled aircraft resulting in excessive deviations from intended flight path.

A2.4.6. Area C-6: Climb Procedures.

A2.4.6.1. **Q.** Climb was IAW the applicable flight manual.

A2.4.6.2. **Q-.** Some under or overcontrol. Flight manual deviations significant but did not affect safety of flight or mission accomplishment.

A2.4.6.3. **U.** Failed to comply with flight manual procedures. Major deviation affecting safety and mission accomplishment.

A2.4.7. Area C-7: Traffic Pattern.

A2.4.7.1. **Q.** Performed patterns/approaches IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was smooth and positive. Accurately aligned with runway. Maintained proper/briefed airspeed/AOA. Airspeed -5/+10 knots.

A2.4.7.2. **Q-.** Performed patterns/approaches with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was not consistently smooth, but safe. Alignment with runway varied. Slow to correct to proper/briefed airspeed/AOA/ Airspeed -5/+15 knots.

A2.4.7.3. **U.** Approaches not performed IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Erratic aircraft control. Large deviations in runway alignment. Exceeded Q- parameters.

A2.4.8. Area C-8: Full Flap/Partial Flap Landing (Fixed Wing – Fighter/Attack/Trainer).

A2.4.8.1. Applicable to normal VFR approaches. Where runway configuration, arresting cable placement or flight manual limitations require an adjustment to the desired touchdown point, a simulated runway threshold will be identified and the grading criteria applied accordingly. For instrument approaches, the examinee should utilize a normal glideslope from either the decision height or from a point where visual acquisition of the runway environment is made.

A2.4.8.2. **Q.** Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point: 150' to 1000' from the runway threshold (Fighters, Attack, Trainers).

A2.4.8.3. **Q-.** Performed landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point: 0' to 149' or 1001' to 1500' from the runway threshold.

A2.4.8.4. **U.** Landing not performed IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point exceeded Q- criteria.

A2.4.9. Area C-8: Full Flap/Partial Flap Landing (Fixed Wing – Bomber/Tanker/Transport).

A2.4.9.1. Where runway configuration, arresting cable placement or flight manual limitations require an adjustment to the desired touchdown point, a simulated runway threshold will be identified and the grading criteria applied accordingly. Flight manual or other regulatory guidance that is more restrictive than the criteria detailed below should be used for touchdown point criteria.

A2.4.9.2. **Q.** Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point: Not more than 3,000' from the threshold or 1/3 of runway, whichever is less, and within stopping distance for runway available.

A2.4.9.3. **Q-.** Performed landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point: Outside of Q criteria but within stopping distance for runway available.

A2.4.9.4. **U.** Landing not performed IAW procedures and techniques outlined in the flight manual, operational procedures and local directives. Touchdown Point not within stopping distance for runway available.

A2.4.10. Area C-8: Hovering Maneuvers (Helicopter).

A2.4.10.1. **Q.** Precise, smooth control while following all procedures and directives. Accurately anticipates wind correction requirements and applies accordingly.

A2.4.10.2. **Q-.** Hovering altitude, speed, and direction erratic. Was safe, but over-controlled and/or rough.

A2.4.10.3. **U.** Unable to maintain altitude, speed, or direction. Control inputs inappropriate for wind conditions. Unsafe control inputs caused major deviations.

A2.4.11. Area C-9: No Flap Landing (Fixed Wing).

A2.4.11.1. **Q.** Used sound judgment. Configured at the appropriate position/altitude. Flew final based on recommended procedures, airspeed/AOA and glidepath. Smooth, positive control of aircraft. Set parameters for ejection if necessary. Touchdown point was IAW criteria detailed in paragraph A.1.4.8.

A2.4.11.2. **Q-.** Safety not compromised. Configured at a position and altitude which allowed for a safe approach. Minor deviations from recommended procedures, airspeed/ AOA and altitudes. Unnecessary maneuvering due to minor errors in planning or judgment. Touchdown point was IAW criteria detailed in paragraph A.1.4.8.

A2.4.11.3. **U.** Major deviations from recommended procedures, airspeed/AOA and altitudes. Required excessive maneuvering due to inadequate planning or judgment. Did not set parameters for ejection if approach was unsuccessful. Touchdown point was IAW criteria detailed in paragraph A.1.4.8.

A2.4.12. Area C-9: Autorotation – St-in (Helicopter).

A2.4.12.1. **Q.** Smooth, positive control of airspeed and rotor RPM throughout the maneuver. Flare and recovery were precise, allowing for a smooth power-on recovery IAW flight manual procedures.

A2.4.12.2. **Q-.** Minor deviation from flight manual procedures, but did not compromise safety of flight. Slow in recognizing and controlling airspeed, rotor RPM, and throttle inputs.

A2.4.12.3. **U.** Major deviations from flight manual procedures. Rough, imprecise control caused unsafe airspeed, altitude, and rotor RPM deviations.

A2.4.13. Area C-10: Engine Out Pattern/Landing (Fixed Wing): Includes simulated single engine, varied flap settings, SFO, as appropriate. In addition to the criteria below, criteria from A2.4.10. also applies to this area if applicable.

A2.4.13.1. **Q.** Complied with all flight manual and operational procedures. Maintained safe maneuvering airspeed/AOA. Flew approach compatible with the situation. Adjusted approach for type emergency simulated.

A2.4.13.2. **Q-.** Minor procedural errors. Erratic airspeed/ AOA control. Errors did not detract from safe handling of the situation.

A2.4.13.3. **U.** Did not comply with applicable procedures. Erratic airspeed/AOA control compounded problems associated with the emergency. Flew an approach which was incompatible with the simulated emergency. Did not adjust approach for simulated emergency.

A2.4.14. Area C-10: Autorotation – Turning.

A2.4.14.1. **Q.** Smooth, positive control of airspeed and rotor RPM throughout the maneuver. Flare and recovery were precise, allowing for a smooth power-on recovery IAW flight manual procedures.

A2.4.14.2. **Q-** Minor deviation from flight manual procedures, but did not compromise safety of flight. Slow in recognizing and controlling airspeed, rotor RPM, and throttle inputs.

A2.4.14.3. **U.** Major deviations from flight manual procedures. Rough, imprecise control caused unsafe airspeed, altitude, and rotor RPM deviations.

A2.4.15. Area C-11: Engine Out Go-Around (Fixed Wing, if applicable)

A2.4.15.1. **Q.** Initiated and performed go-around promptly in accordance with flight manual and operational procedures and directives.

A2.4.15.2. **Q-** Slow to initiate go-around or procedural steps.

A2.4.15.3. **U.** Did not self-initiate go-around when appropriate or directed. Techniques inappropriate or applied incorrect procedures.

A2.4.16. Area C-11: Approach/Landing (Helicopter).

A2.4.16.1. **Q.** Approach flown IAW flight manual procedures. Aircraft control was positive, alignment with the intended touchdown area was maintained. Airspeed maintained +/- 10 KIAS, +/- 50 feet. Maintained 90 KIAS and 500 feet AGL on downwind, and 70 KIAS and 300 feet AGL on base leg. Conducted level turn to final. Cleared the aircraft.

A2.4.16.2. **Q-** Approach and/or aircraft control rough and erratic. Deviations to flight manual guidelines significant but did not affect safety or mission accomplishment.

A2.4.16.3. **U.** Approaches procedurally unsafe. Major airspeed, heading, and altitude deviations resulting in failure to accomplish a safe landing. Did not clear the aircraft.

A2.4.17. Area C-12: Full Stop Landing (Fixed Wing).

A2.4.17.1. **Q.** Landing accomplished IAW flight manual procedures. Aircraft control throughout the landing was smooth and positive using proper braking, steering, and flight control inputs.

A2.4.17.2. **Q-** Landing accomplished with significant deviations to established procedures but safety was not affected. Aircraft control to include braking, steering, and flight control inputs was erratic, but safe.

A2.4.17.3. **U.** Airspeed, alignment, or sink rate limitations exceeded. Landing unsafe, inappropriate control inputs jeopardized safety.

A2.4.18. Area C-12: Remote Ops/Site Eval (Helicopter).

A2.4.18.1. **Q.** Familiar with procedures and able to execute appropriate maneuvers IAW the flight manual. Thoroughly aware of power requirements and limitations. Effectively assessed landing risk. Evaluated and communicated landing area obstacles, size, and topography, winds and turbulence.

A2.4.18.2. **Q-** Missed minor factors pertinent to the approach. Evaluation not tailored to the situation or excessively detailed and time consuming. Confused or disorganized communication with crew.

A2.4.18.3. **U.** Major deviations from Q criteria. Errors or omissions precluded safe and effective maneuvers/effectiveness. Failed to consider pertinent details. Unable to clearly communicate with crew.

A2.4.19. Area C-13: After Landing.

A2.4.19.1. **Q.** Appropriate after landing checks and aircraft taxi procedures were accomplished.

A2.4.19.2. **Q-** Significant deviations or omissions from established procedures but safety and mission effectiveness were not affected.

A2.4.19.3. **U.** Checks were not accomplished in timely manner. Errors of omission committed without correction.

A2.4.20. Area C-14: Systems Knowledge.

A2.4.20.1. **Q.** Thorough knowledge of aircraft systems, limitations, and performance characteristics.

A2.4.20.2. **Q-** Knowledge of aircraft systems, limitation, and performance characteristics sufficient to perform the mission safely. Deficiencies either in depth of knowledge or comprehension.

A2.4.20.3. **U.** Unfamiliar with systems operation. Unable to recall details, ops limits, or operational processes.

A2.4.21. Area C-15: Boldface Emergencies (Helicopter).

A2.4.21.1. **Q.** Properly analyzed the situation without undue delay and demonstrated adequate knowledge of procedures to effectively handle the emergency. **BOLDFACE**/Critical Action Procedures (CAPS) required by applicable flight manuals were accomplished without omission and in the proper sequence. Unnecessary procedures did not preclude satisfactory control of the emergency or further complicate the situation. Effective and timely use made of other crewmembers, the flight manual, and checklist. Positive control of the aircraft existed at all times.

A2.4.21.2. **U.** Incorrect response to **BOLDFACE**/CAPS. Unable to analyze problems or take corrective action. Did not use checklist, flight manual, or other crewmembers even though it was a procedural requirement. Did not maintain positive control of the aircraft at all times.

A2.4.22. Area C-16: Non-Critical Emergencies (Helicopter).

A2.4.22.1. **Q.** Demonstrated satisfactory knowledge of noncritical emergency procedures. Properly analyzed the situation and demonstrated or explained the appropriate procedures as outlined in the flight manual. Thoroughly familiar with flight manual and checklist arrangement and contents.

A2.4.22.2. **Q-** Responses to presented situation was slow or confused. Slow to use checklist, flight manual, and other crewmembers when appropriate. Slow to locate required data in checklist or flight manual.

A2.4.22.3. **U.** Unable to analyze the problem and formulate a solution. Unfamiliar with checklists and flight manual data. Failed to utilize crewmembers when appropriate.

A2.5. Area D: Instrument.

A2.5.1. Area D-1: Instrument Takeoff.

A2.5.1.1. **Q.** Maintained smooth aircraft control throughout takeoff. Performed takeoff IAW flight manual procedures and AFMAN 11-217.

A2.5.1.2. **Q-** Minor procedural deviations. Control was rough or erratic.

A2.5.1.3. **U-** Takeoff potentially dangerous. Exceeded aircraft systems limitations. Raised gear too early/late. Failed to establish proper climb attitude. Over controlled aircraft resulting in excessive deviations from intended flight path.

A2.5.2. Area D-2: Instrument Departure.

A2.5.2.1. **Q.** Performed departure as published/directed and complied with all restrictions.

A2.5.2.2. **Q-** Minor deviations in airspeed and navigation occurred during completion of departure.

A2.5.2.3. **U.** Failed to comply with published/directed departure instructions.

A2.5.3. Area D-3: Climb/Level off.

A2.5.3.1. **Q.** Climb IAW flight manual. Accomplished required checks. Levelled off smoothly. Promptly established proper cruise airspeed.

A2.5.3.2. **Q-** Climb airspeed deviations. Level-off was erratic. Slow in establishing proper cruise airspeed.

A2.5.3.3. **U.** Level-off was grossly erratic. Exceeded Q- limits. Excessive delay or failed to establish proper cruise airspeed. Failed to reset altimeter, as required.

A2.5.4. Area D-4: Unusual Attitudes (May be evaluated during EPE).

A2.5.4.1. **Q.** Smooth, positive recovery to level flight with correct recovery procedures.

A2.5.4.2. **Q-** Slow to analyze attitude, or erratic in recovery to level flight. Correct recovery procedures used.

A2.5.4.3. **U.** Unable to determine attitude. Improper recovery procedures were used.

A2.5.5. Area D-5: Holding.

A2.5.5.1. **Q.** Entry and procedures IAW applicable directives. Made appropriate wind drift and timing adjustments. Leg timing +/- 15 seconds, TACAN +/- 2 nm.

A2.5.5.2. **Q-** Difficulty in entering the holding pattern and/or establishing correct inbound leg time. Inadequate wind drift correction prevented expeditious inbound course interception; course intercepted prior to holding fix. Leg timing +/- 20 seconds, TACAN +/- 3 nm.

A2.5.5.3. **U.** Unable to determine direction of turn or timing criteria. Disoriented; unable to intercept inbound course prior to holding fix. Exceeded Q- timing and TACAN criteria.

A2.5.6. Area D-6: Descent/Arrival:

A2.5.6.1. **Q.** Performed descent as directed, complied with all restrictions. Planned ahead for altitude restrictions.

A2.5.6.2. **Q-** Performed descent as directed with minor deviations. Difficulty achieving altitude restrictions. Slow to respond to controller instructions.

A2.5.6.3. **U.** Performed descent with major deviations. Ignored controller instructions. Violated altitude restrictions.

A2.5.7. Area D-7: Instrument Traffic Pattern.

A2.5.7.1. **Q.** Performed procedures as published or directed and IAW flight manual. Smooth and timely response to controller instruction.

A2.5.7.2. **Q-** Performed procedures with minor deviations. Slow to respond to controller instruction.

A2.5.7.3. **U.** Performed procedures with major deviations/ erratic corrections. Failed to comply with controller instruction.

A2.5.8. Area D-8: Precision Approach (ILS) (See note on PAR).

A2.5.8.1. **Q.** Performed procedures as published and IAW applicable flight manual. Smooth and timely corrections to azimuth and glide slope. Complied with decision height and position would have permitted a safe landing. Maintained proper/briefed AOA.

A2.5.8.1.1. Airspeed +10/-5 kts

A2.5.8.1.2. Glide Slope/Azimuth within one dot

A2.5.8.1.3. Initiated missed approach (if applicable) at decision height, +50/-0 ft.

A2.5.8.2. **Q-.** Performed procedures with minor deviations. Slow to make corrections or initiate procedures. Position would have permitted a safe landing. Slow to correct to proper/briefed AOA.

A2.5.8.2.1. Airspeed +15/-5 kts

A2.5.8.2.2. Glide Slope within one dot low/two dots high

A2.5.8.2.3. Azimuth within two dots

A2.5.8.2.4. Initiated missed approach (if applicable) at decision height, +100/-0 ft.

A2.5.8.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. Did not comply with decision height or position at Decision Height (DH) would not have permitted a safe landing.

A2.5.9. Area D-9: Precision Approach (PAR).

Note. Both an ILS and PAR must be evaluated if facilities are available. If facilities are not available, the evaluation can be completed if one precision and one non-precision approach are evaluated.

A2.5.9.1. **Q.** Performed procedures as directed and IAW applicable flight manual. Smooth and timely response to controller instruction. Complied with decision height. Position would have permitted a safe landing. Maintained proper/briefed AOA. Maintained glide path with only minor deviations.

A2.5.9.1.1. Airspeed +10/-5 kts

A2.5.9.1.2. Heading within 5 degrees of controller instruction

A2.5.9.1.3. Initiated missed approach (if applicable) at decision height, +50/-0 ft.

A2.5.9.2. **Q-.** Performed procedures with minor deviations. Slow to respond to controller's instructions. Position would have permitted a safe landing. Slow to correct to proper/ briefed AOA. Improper glide path control.

A2.5.9.2.1. Airspeed +15/-5 kts

A2.5.9.2.2. Heading within 10 degrees of controller instruction.

A2.5.9.2.3. Initiated missed approach (if applicable) at decision height, +100/-0 ft.

A2.5.9.3. **U.** Performed procedures with major deviations. Erratic corrections. Did not respond to controller instruction. Exceeded Q- limits. Did not comply with decision height and/or position would not have permitted a safe landing. Erratic glide path control.

A2.5.10. Area D-10: Non-Precision Approach.

A2.5.10.1. **Q.** Adhered to all published/directed procedures and restrictions. Used appropriate descent rate to arrive at Minimum Descent Altitude (MDA) at or before Visual Descent Point (VDP)/ Missed Approach Point (MAP). Position would have permitted a safe landing. Maintained proper/briefed AOA.

A2.5.10.1.1. Airspeed +10/-5 kts

A2.5.10.1.2. Heading ± 5 degrees (ASR)

A2.5.10.1.3. Course ± 5 degrees at MAP

A2.5.10.1.4. Localizer less than one dot deflection

A2.5.10.1.5. Minimum Descent Altitude +100/-0 feet

A2.5.10.2. **Q-**. Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the VDP. Position would have permitted a safe landing. Slow to correct to proper/ briefed AOA.

A2.5.10.2.1. Airspeed +15/-5 kts

A2.5.10.2.2. Heading ± 10 degrees (ASR)

A2.5.10.2.3. Course ± 10 degrees at MAP

A2.5.10.2.4. Localizer within two dots deflection

A2.5.10.2.5. Minimum Descent Altitude +150/-50 feet

A2.5.10.3. **U**. Did not comply with published/directed procedures or restrictions. Exceeded Q- limits. Maintained steady-state flight below the MDA, even though the -50 foot limit was not exceeded. Could not land safely from the approach.

Note. The -50 foot tolerance applies only to momentary excursions.

A2.5.11. Area D-11: Missed Approach/Climb Out.

A2.5.11.1. **Q**. Executed missed-approach/climbout as published/directed. Completed all procedures IAW applicable flight manual.

A2.5.11.2. **Q-**. Executed missed approach/climb-out with minor deviations. Slow to comply with published procedures, controller's instructions or flight manual procedures.

A2.5.11.3. **U**. Executed missed-approach/climb-out with major deviations, or did not comply with applicable directives.

A2.6. Area E: Instructor.

A2.6.1. Area E-1: Instructional Ability.

A2.6.1.1. **Q**. Demonstrated excellent instructor/evaluator ability. Clearly defined all mission requirements and any required additional training/corrective action. Instruction/evaluation was accurate, effective and timely. Was completely aware of aircraft/mission situation at all times.

A2.6.1.2. **Q-**. Problems in communication or analysis degraded effectiveness of instruction/evaluation.

A2.6.1.3. **U**. Demonstrated inadequate ability to instruct/evaluate. Unable to perform, teach or assess techniques, procedures, systems use or tactics. Did not remain aware of aircraft/mission situation at all times.

A2.6.2. Area E-2: Briefing/Debriefing.

A2.6.2.1. **Q**. Conducted a well organized briefing and debriefing which analyzed mission requirements, identified significant discrepancies and presented the correct procedure. Adequately briefed and

instructed the upgradee on specific mission requirements. Did not overwhelm the upgrading aircrew with a long and detailed discussion of minor discrepancies.

A2.6.2.2. **Q-** Conducted an acceptable debriefing. Omitted some items that were important to completing the upgradee's mission. Analyzed most significant discrepancies and presented the correct procedures with minor deviations or omissions.

A2.6.2.3. **U.** Failed to instruct required mission items. Unable to analyze deviations and present corrections. Did not notice or debrief major deviations. Mission non-effective for planning and instruction reasons.

A2.6.3. Area E-3: Demonstration and Performance: (For instructor evaluations where the IP normally instructs from a chase aircraft, the examinee will fly a portion of the mission in the chase position.).

A2.6.3.1. **Q.** Performed required maneuvers within prescribed parameters. Provided concise, meaningful in-flight commentary. Demonstrated excellent instructor proficiency.

A2.6.3.2. **Q-** Performed required maneuvers with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear.

A2.6.3.3. **U.** Was unable to properly perform required maneuvers. Made major procedural errors. Did not provide in-flight commentary. Demonstrated below-average instructor proficiency.

A2.6.4. Area E-4: Conduct of the Mission.

A2.6.4.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

A2.6.4.2. **Q-** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not effectively used to the extent specific mission objectives were not achieved.

A2.6.4.3. **U.** Unacceptable or unsafe decisions compromised safety. Undisciplined actions violated training rules repeatedly.

A2.6.5. Area E-5: Touch and Go Landings (Fixed Wing).

A2.6.5.1. **Q.** Thorough knowledge of safety emergency contingencies during touch and go landings. Performed maneuver IAW established procedures accomplishing all checklist items in a timely manner.

A2.6.5.2. **Q-** Minor deviations or omissions from established procedures but safety and mission accomplishment not affected. Limited knowledge of safety/emergency contingencies during touch and go landings.

A2.6.5.3. **U.** Improper configuration or procedures compromised safety. Unprepared for contingencies.

A2.7. Area F: Mission.

A2.7.1: Area F-1: Knowledge.

A2.7.1.1. **Q.** Fully knowledgeable in mission requirements, test plan directives, aircraft limitations, and partial flight manual. Effectively coordinated with other crew members and project personnel.

A2.7.1.2. **Q-** Demonstrated a limited knowledge of mission requirements, test plan directives, aircraft limitations, or the partial flight manual which degraded a portion of the mission objective or CRM.

A2.7.1.3. **U.** Inadequate knowledge of mission requirements, test plan directive, aircraft limitations, and partial flight manual. Did not effectively use resources. Directly affected successful mission accomplishment.

A2.7.2. Area F-2: Planning.

A2.7.2.1. **Q.** Considered all factors necessary for mission accomplishment to include weather, mission profile, airspace utilization/restrictions, and proper documentation.

A2.7.2.2. **Q-.** Limited consideration of all factors necessary for mission accomplishment. However, did not affect mission objective directly, but may have contributed toward lack of effective CRM.

A2.7.2.3. **U.** Did not consider all factors necessary for mission accomplishment. Lack of consideration contributed negatively towards successful mission completion.

A2.7.3. Area F-3: Execution.

A2.7.3.1. **Q.** Accomplished major mission objectives in a timely and skillful manner.

A2.7.3.2. **Q-.** Errors or omission were made which did not render mission ineffective, but indicated a definite need for additional training.

A2.7.3.3. **U.** Improper execution of duties negatively impacted mission accomplishment.

A2.7.4. Area F-4: Security (Critical).

A2.7.4.1. **Q.** Adequate security of mission information and material was maintained throughout pre-flight, flight, and postflight.

A2.7.4.2. **U.** Inadequate security procedures were carried out which would lead to the compromise of mission information and/or material.

Attachment 3**WSO/NAVIGATOR/OSO/EWO/DSO EVALUATION CRITERIA****A3.1. General Grading Standards.**

A3.1.1. The grading criteria in this attachment are divided into five sections: Ground Phase, General, Qualification, Instructor, and Mission. Use all sections for criteria applicable to the events performed on the evaluation. These areas match the graded areas for WSO/Navigator/OSO/EWO/DSOs found on forms specified in AFMC Supplement to AFI 11-20V2.

A3.1.2. Evaluate events in Area C with respect to aircraft equipment and normal duties as it pertains to the applicable crew position.

A3.2. Area A: Ground Phase.

A3.2.1. Area A-1: Publications.

A3.2.1.1. **Q.** Assigned flight publications were current, complete, and usable for any of the unit's tasking.

A3.2.1.2. **Q-.** Assigned flight publications contained deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.

A3.2.1.3. **U.** Contained major deviations, omissions, and/or errors which compromise safety of flight.

A3.2.2. Area A-2: Emergency Procedures Evaluation.

A3.2.2.1. **Q.** Displayed correct, immediate response to Bold Face and non-Bold Face emergency situations. Effectively used checklist.

A3.2.2.2. **Q-.** Response to Bold Face emergencies 100% correct. Response to certain areas of non-Bold Face emergencies or follow-on steps to Bold Face procedures was slow/confused. Used the checklist when appropriate, but slow to locate required data.

A3.2.2.3. **U.** Incorrect response for Bold Face emergency. Unable to analyze problems or take corrective action. Did not use checklist, or lacks acceptable familiarity with its arrangement or contents.

A3.3. Area B: General.

A3.3.1. Area B-1: Safety (Critical):

A3.3.1.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

A3.3.1.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear. Operated aircraft equipment in a dangerous manner.

A3.3.2. Area B-2: Judgement (Critical):

A3.3.2.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

A3.3.2.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

A3.3.3. Area B-3: Flight Discipline (Critical).

A3.3.3.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

A3.3.3.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

A3.3.4. Area B-4: Briefings.

A3.3.4.1. **Q.** Well organized and presented in a logical sequence. Concluded briefing in time to allow for element/crew briefing (if applicable) and preflight of personal equipment, aircraft and ordnance. Presented briefing in a professional manner. Effective use of training/visual aids. Flight members clearly understood mission requirements. Established objectives for the mission. Presented all training events and effective technique discussion for accomplishing the mission. Considered the abilities of all flight members. Briefed corrective action from previous mission and probable problem areas when appropriate.

A3.3.4.2. **Q-.** Events out of sequence, hard to follow, some redundancy. Did not make effective use of available training/visual aids. Dwelled on non-essential mission items. Omitted some minor training events. Limited discussion of techniques. Did not consider all flight members' abilities. Did not identify probable problem areas.

A3.3.4.3. **U.** Confusing presentation. Did not allow time for element/crew briefing (if applicable) and preflight of personal equipment, aircraft and ordnance. Did not use training aids. Redundant throughout briefing. Lost interest of flight members. Presentation created doubts or confusion. Did not establish objectives for the mission. Omitted major training events or did not discuss techniques. Ignored flight members' abilities and past problem areas.

A3.3.5. Area B-5: Personal Equipment.

A3.3.5.1. **Q.** Thoroughly familiar with personal equipment requirements, usage, and preflight.

A3.3.5.2. **Q-.** Possessed required personal equipment items and was familiar with most of the preflight and usage procedures.

A3.3.5.3. **U.** Unfamiliar with required personal equipment preflight and usage.

A3.3.6. Area B-6: Forms, Reports, Logs.

A3.3.6.1. **Q.** Completed or supervised completion of all required preflight and postflight forms and documentation without significant error.

A3.3.6.2. **Q-.** Completed or supervised completion of all required preflight and postflight forms and documentation with some errors or omissions that had to be corrected.

A3.3.6.3. **U.** Forms were incomplete, improperly filled out. Data on forms inaccurate detracting from recording the mission data.

A3.3.7. Area B-7: Flight Planning.

A3.3.7.1. **Q.** Developed a sound plan to accomplish the mission. Checked all factors applicable to flight in accordance with applicable directives. Aware of alternatives available, if flight cannot be completed as planned. Read and initialed for all items in the Flight Crew Information File (FCIF)/Read Files. Prepared at briefing time.

A3.3.7.2. **Q-.** Same as above, except minor error(s) or omission(s) that did not detract from mission effectiveness. Demonstrated limited knowledge of performance capabilities or approved operating procedures/rules in some areas.

A3.3.7.3. **U.** Made major error(s) or omission(s) that would have prevented a safe or effective mission. Displayed faulty knowledge of operating data or procedures. Did not review or initial Go/No-Go items. Not prepared at briefing time.

A3.3.8. Area B-8: Use of Checklists.

A3.3.8.1. **Q.** Used current checklist and accomplished all items in proper sequence with no deviations or omissions.

A3.3.8.2. **Q-.** Only minor deviations from checklist procedures were noted.

A3.3.8.3. **U.** Failed to use current checklist or deviated from checklist procedures resulting in the mission being compromised.

A3.3.9. Area B-9: Crew Resource Management.

A3.3.9.1. **Q.** Coordinated effectively with other crewmembers/mission personnel. Effectively used all crewmembers. Gave clear, concise crew instructions.

A3.3.9.2. **Q-.** Coordinated satisfactorily with other crewmembers/mission personnel. Some instructions were not clear and concise.

A3.3.9.3. **U.** Failed to coordinate with crewmembers/mission personnel. Did not give clear and concise instructions. Failed to utilize resources causing degradation of the mission.

A3.3.10. Area B-10: Communication Procedures.

A3.3.10.1. **Q.** Radio and intra-cockpit communications were concise, accurate and effectively used to direct maneuvers or describe the tactical situation.

A3.3.10.2. **Q-** Minor terminology errors or omissions occurred, but did not significantly detract from situational awareness, mutual support or mission accomplishment. Extraneous comments over primary or secondary radios presented minor distractions.

A3.3.10.3. **U.** Radio communications over primary/secondary radios were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from mutual support, situational awareness or mission accomplishment.

A3.3.11. Area B-11: Knowledge of Directives.

A3.3.11.1. **Q.** Demonstrated thorough knowledge of aircraft systems, limitations and performance characteristics.

A3.3.11.2. **Q-.** Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Demonstrated deficiencies either in depth of knowledge or comprehension.

A3.3.11.3. **U.** Demonstrated unsatisfactory knowledge of aircraft systems, limitations or performance characteristics.

A3.4. Area C: Qualification.

A3.4.1. Area C-1: Pre-takeoff, Departure, Level Off (WSO).

A3.4.1.1. **Q.** Completed checklist items in accordance with applicable flight manual. Accurately copied clearance and understood ATC instructions. Monitored aircraft position throughout departure and provided headings and ETAs as required. Ensured safe terrain clearance.

A3.4.1.2. **Q-**. Same as above, except made minor error(s) or omissions(s) that did not detract from safety or mission accomplishment. Deficiencies indicated a definite need for study and/or additional training.

A3.4.1.3. **U**. Major error(s) or omission(s) that would preclude safe/effective mission accomplishment.

A3.4.2. Area C-1: Pretakeoff, Departure, and Level-off. (NAV/OSO).

A3.4.2.1. **Q**. Completed checklist items in accordance with applicable flight manual. Accurately copied clearance and understood departure control instructions. Monitored aircraft positions throughout departure and provided headings and ETAs as required. Ensured safe terrain clearance. Accomplished calibration checks and position fixing as required for the mission or by the evaluator.

A3.4.2.2. **Q-**. Same as above, except made minor error(s) or omission(s) that did not detract from safe/effective mission accomplishment. Deficiencies indicated and definite need for study and/or additional training.

A3.4.2.3. **U**. Major error(s) or omission(s) that would preclude safe/effective mission accomplishment.

A3.4.3. Area C-1: Pretakeoff, Departure, and Level-Off. (EWO/DSO).

A3.4.3.1. **Q**. Adhered to station, start, engine, taxi, and takeoff times to assure thorough preflight, check of personal equipment, crew briefing, etc. Performed all checks and procedures through level-off in accordance with approved checklists and applicable directives.

A3.4.3.2. **Q-**. Same as above, except procedural deviations which did not detract from mission effectiveness but indicated a definite need for study and/or additional training.

A3.4.3.3. **U**. Omitted major item(s) of the appropriate checklist. Major deviations in procedures which would preclude safe mission accomplishment. Errors directly contributed to mission degradation or made it ineffective.

A3.4.4 Area C-2: Navigation (WSO).

A3.4.4.1. **Q**. Demonstrated satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.

A3.4.4.2. **Q-**. Minor errors in procedures/use of navigation equipment. Some deviations in tuning, identifying, and monitoring NAVAIDs. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course.

A3.4.4.3. **U**. Major errors in procedures/use of equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace.

A3.4.5. Area C-2: Navigation (NAV/OSO).

A3.4.5.1. **Q**. Procedures required by the flight manual and governing directives were accomplished with no more than minor discrepancies that did not adversely affect the mission. Demonstrated satisfactory capability to navigate using DR procedures. At no time allowed the airplane to deviate more than 6 nautical miles from the planned/replanned course or to deviate outside ATC assigned/protective lateral airspace. ETAs (if applicable) were revised as necessary and were accurate within 3 minutes.

A3.4.5.2. **Q-**. Procedures required by the flight manual and governing directives were accomplished with deviations, omissions, or errors which indicated a definite need for study and/or additional training. Slow

to recognize airplane course deviation, but at no time allowed the airplane to deviate more than 10 nautical miles from the planned/replanned course. ETAs were not accurate within 3 minutes when reporting procedures did not apply. Information obtained was not always accurate and complete, but was sufficient to allow reconstruction of the mission. Performance was the minimum acceptable.

A3.4.5.3. **U.** Not up to standards of Qualified with Training. Allowed the airplane to deviate outside of the ATC assigned/perspective lateral airspace. ETAs were not accurate within 3 minutes when reporting procedures apply.

A3.4.6. Area C-3: Instrument Interpretation (Navigator/OSO/WSO/DSO).

A3.4.6.1. **Q.** Demonstrated satisfactory knowledge of basic instrument procedures, penetration, and approach procedures. Can quickly analyze flight instruments, determine aircraft attitude, and is knowledgeable of required action to correct the aircraft to level flight. Effectively monitored energy levels to ensure parameters were not exceeded.

A3.4.6.2. **Q-.** Limited knowledge of instrument procedures. Slow to recognize aircraft attitudes and corrective actions required, but did determine proper corrections within a safe time period.

A3.4.6.3. **U.** Faulty or insufficient knowledge of instrument procedures. Unable to properly interpret instruments or recognize aircraft attitude.

A3.4.7. Area C-4: Fuel Management (WSO/NAV/OSO). (*IF APPLICABLE*).

A3.4.7.1. **Q.** Fuel planning and enroute fuel management procedures required by the flight manual and governing directives were accomplished with no more than minor discrepancies that did not adversely affect the safety or effectiveness of the mission.

A3.4.7.2. **Q-.** Knowledge of procedures required by the flight manual and governing directives was marginal. Deficiencies indicated a definite need for study and/or additional training.

A3.4.7.3. **U.** Not up to standards of Qualified with Training.

A3.4.8. Area C-5: Equipment Operation.

A3.4.8.1. **Q.** Equipment was operated in accordance with prescribed procedures and with no more than minor deviations or omissions. Satisfactory results were obtained consistent with existing conditions. Equipment malfunctions were properly analyzed and corrected when possible for satisfactory equipment capability. Equipment crosschecks and data collection were effectively integrated with flight navigation.

A3.4.8.2. **Q-.** Equipment was not operated in accordance with prescribed procedures, but the mission was not adversely affected and equipment could not have been damaged. Variations and omissions in prescribed procedures, erroneous data insertion, or faulty techniques indicated a definite need for study and/or additional training.

A3.4.8.3. **U.** Unfamiliar with equipment operations, damaged or destroyed equipment. Mission accomplishment compromised.

A3.4.9. Area C-6: Descent and Landing.

A3.4.9.1. **Q.** Procedures required by the flight manual, checklists, and governing directives were accomplished with no more than minor deviations, omissions, or errors that did not effect the mission. Monitored aircraft position throughout arrival and provided heading and altitude as required. Ensured safe terrain clearance. Understood approach control instructions. Appropriate FLIP publications were correctly used.

A3.4.9.2. **Q-.** Procedures required by the flight manual, checklist, and governing directives were accomplished with deviations, omissions, or errors which indicated a definite need for study and/or additional training. Performance or knowledge was the minimum acceptable.

A3.4.9.3. **U.** Lack of knowledge and situational awareness caused major deviations to safety and mission accomplishment.

A3.4.10. Area C-7: Postflight.

A3.4.10.1. **Q.** Checklists, forms, and reports were accomplished with no more than minor deviations, omissions, or errors that did not adversely affect their intent.

A3.4.10.2. **Q-.** Checklists, forms, and reports were accomplished in a manner that indicated a definite need for study and/or additional training. Performance or knowledge was the minimum acceptable.

A3.4.10.3. **U.** Failed to accomplish postflight duties, forms were unacceptable, post flight reports improperly filled out.

A3.5. Area D: Instructor.

A3.5.1. Area D-1: Instructional Ability.

A3.5.1.1. **Q.** Demonstrated ability to communicate effectively. Provided appropriate corrective guidance when necessary.

A3.5.1.2. **Q-.** Instruction was essentially correct with some deviations or omissions. Problems in communications or analysis did not degrade effectiveness of instructions.

A3.5.1.3. **U.** Inability to effectively communicate with the upgradee. Did not provide corrective action where necessary. Did not plan ahead or anticipate upgradee problems.

A3.5.2. Area D-2: Briefing/Debriefing.

A3.5.2.1. **Q.** Briefings were well organized, accurate and thorough. Reviewed upgradee's present level of training and defined mission events to be performed. Excellent ability during critique to reconstruct the flight, offer mission analysis, and provide corrective guidance where appropriate. Completed all training documents in accordance with prescribed directives. Training syllabi reflected actual performance of upgradee relative to standard. Pre-briefed the upgradee's requirements for the next mission.

A3.5.2.2. **Q-.** Minor errors or omissions in briefing, critique, and/or training documents that did not affect upgradee progress.

A3.5.2.3. **U.** Briefings were marginal or non-existent. Did not review upgradee's training folder or past performance. Failed to adequately critique upgradee or provide complete mission analysis. Training syllabi grade did not reflect actual performance of upgradee. Comments in training folder were incomplete. Strengths and weaknesses were not identified. Overlooked or omitted major discrepancies. Incomplete pre-briefing of upgradee's training requirements/objectives for mission.

A3.5.3. Area D-3: Demonstration and Performance

A3.5.3.1. **Q.** Effectively demonstrated procedures and techniques on the ground and inflight. Demonstrated thorough knowledge of aircraft systems, procedures, and all applicable publications and regulations.

A3.5.3.2. **Q-.** Minor discrepancies in the above criteria that did not affect safety or adversely affect upgradee performance.

A3.5.3.3. **U.** Did not demonstrate correct procedure or technique. Insufficient knowledge about aircraft systems, procedures, and/or proper source material.

A3.5.4. Area D-4: Conduct of the Mission

A3.5.4.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

A3.5.4.2. **Q-.** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not effectively used to the extent specific mission objectives were not achieved.

A3.5.4.3. **U.** Mission execution prevented accomplishment of a major portion of the mission. Undisciplined actions violated training rules repeatedly.

A3.6. Area E: Mission.

A3.6.1. Area E-1: Knowledge.

A3.6.1.1. **Q.** Fully knowledgeable in mission requirements, test plan directives, aircraft limitations, and partial flight manual. Effectively coordinated with other crew members and project personnel.

A3.6.1.2. **Q-.** Demonstrated a limited knowledge of mission requirements, test plan directives, aircraft limitations, or the partial flight manual which degraded a portion of the mission objective or CRM.

A3.6.1.3. **U.** Inadequate knowledge of mission requirements, test plan directive, aircraft limitations, and partial flight manual. Did not effectively use resources. Directly affected successful mission accomplishment.

A3.6.2. Area E-2: Planning.

A3.6.2.1. **Q.** Considered all factors necessary for mission accomplishment to include weather, mission profile, airspace utilization/restrictions, and proper documentation.

A3.6.2.2. **Q-.** Limited consideration of all factors necessary for mission accomplishment. However, did not affect mission objective directly, but may have contributed toward lack of effective CRM.

A3.6.2.3. **U.** Did not consider all factors necessary for mission accomplishment. Lack of consideration contributed negatively towards successful mission completion.

A3.6.3. Area E-3: Execution.

A3.6.3.1. **Q.** Accomplished major mission objectives in a timely and skillful manner.

A3.6.3.2. **Q-.** Errors or omission were made which did not render mission ineffective, but indicated a definite need for additional training.

A3.6.3.3. **U.** Improper execution of duties negatively impacted mission accomplishment.

A3.6.4. Area E-4: Security (Critical).

A3.6.4.1. **Q.** Adequate security of mission information and material was maintained throughout pre-flight, flight, and postflight.

A3.6.4.2. **U.** Inadequate security procedures were carried out which would lead to the compromise of mission information and/or material.

Attachment 4

ENLISTED AIRCREW GRADING CRITERIA

A4.1. General Grading Standards. This chapter contains the criteria for administering initial qualification, qualification, requalification, and instructor enlisted aircrew evaluations. Evaluation criteria consists of four sections: Ground, General, Qualification, and Instructor.

A4.1.1. The grading criteria in this attachment are divided into four sections: Ground Phase, General, Qualification, and Instructor. Use all sections for criteria applicable to the events performed on the evaluation. These areas match the graded areas for enlisted aircrew found on forms specified in AFMC Supplement to AFI 11-202V2.

A4.1.2. Grading criteria for every situation could not possibly be covered in this attachment. The evaluator's experience and good judgment are relied upon to provide a sensible analysis of the applicable items evaluated. Where more restrictive flight manual procedures are established they will take precedence.

A4.2. Area A: Ground Phase.

A4.2.1. Area A-1: Publications.

A4.2.1.1. **Q.** Assigned flight publications were current, complete, and usable for any of the unit's tasking.

A4.2.1.2. **Q-.** Assigned flight publications contained deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.

A4.2.1.3. **U.** Contained major deviations, omissions, and/or errors which compromise safety of flight

A4.2.2. Area A-2: Emergency Procedures Evaluation.

A4.2.2.1. **Q.** Displayed correct, immediate response to Bold Face and non-Bold Face emergency situations. Effectively used checklist.

A4.2.2.2. **Q-.** Response to Bold Face emergencies 100% correct. Response to certain areas of non-Bold Face emergencies or follow-on steps to Bold Face procedures was slow/confused. Used the checklist when appropriate, but slow to locate required data.

A4.2.2.3. **U.** Incorrect response for Bold Face emergency. Unable to analyze problems or take corrective action. Did not use checklist, or lacks acceptable familiarity with its arrangement or contents.

A4.3. Area B: General.

A4.3.1. Area B-1: Safety (Critical):

A4.3.1.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

A4.3.1.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear. Operated the aircraft in a dangerous manner.

A4.3.2. Area B-2: Judgement (Critical):

A4.3.2.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

A4.3.2.2. **U.** Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.

A4.3.3. Area B-3: Flight Discipline (Critical).

A4.3.3.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission.

A4.3.3.2. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions.

A4.3.4. Area B-4: Briefings.

A4.3.4.1. **Q.** Presented briefing in a professional manner. Briefing was well organized and in a logical sequence. Effective use of training aids. Concluded briefing in allotted time. Flight members clearly understood briefing. Briefed corrective action from previous mission and probable problem areas when appropriate.

A4.3.4.2. **Q-.** Events out of sequence, hard to follow, some redundancy. Did not make effective use of available training aids. Dwelled on non-essential items. Briefed longer than allotted time. Limited discussion of techniques. Did not identify probable problem areas.

A4.3.4.3. **U.** Confusing presentation. Did not use training aids. Redundant throughout briefing. Lost interest of flight members. Presentation created doubts or confusion. Omitted major training events or did not discuss techniques. Ignored past problem areas.

A4.3.5. Area B-5: Personal Equipment.

A4.3.5.1. **Q.** Thoroughly familiar with personal equipment requirements, usage, and preflight.

A4.3.5.2. **Q-.** Possessed required personal equipment items and was familiar with most of the preflight and usage procedures.

A4.3.5.3. **U.** Unfamiliar with required personal equipment preflight and usage.

A4.3.6. Area B-6: Forms, Reports, Logs.

A4.3.6.1. **Q.** Completed or supervised completion of all required preflight and postflight forms and documentation without significant error.

A4.3.6.2. **Q-.** Completed or supervised completion of all required preflight and postflight forms and documentation with some errors or omissions that had to be corrected.

A4.3.6.3. **U.** Forms were incomplete, improperly filled out. Data on forms inaccurate detracting from recording the mission data.

A4.3.7. Area B-7: Flight Planning.

A4.3.7.1. **Q.** Checked all factors applicable to flight in accordance with applicable directives. Aware of mission and alternate mission requirements and planned accordingly. Read and initialed all items in the Flight Crew Information File (FCIF)/Read Files. Prepared at briefing time.

A4.3.7.2. **Q-.** Same as above, except minor error(s) or omission(s) that did not detract from mission effectiveness. Demonstrated limited knowledge of performance capabilities or approved operating procedures/rules in some areas.

A4.3.7.3. **U.** Made major error(s) or omission(s) that would have prevented a safe or effective mission. Displayed faulty knowledge of operating data or procedures. Did not review or initial FCIF items. Not prepared at briefing time.

A4.3.8. Area B-8: Use of Checklists.

A4.3.8.1. **Q.** Used current checklist and accomplished all items in proper sequence with no deviations or omissions.

A4.3.8.2. **Q-.** Only minor deviations from checklist procedures were noted.

A4.3.8.3. **U.** Failed to use current checklist or deviated from checklist procedures resulting in the mission being compromised.

A4.3.9. Area B-9: Crew Resource Management.

A4.3.9.1. **Q.** Coordinated effectively with other crewmembers/mission personnel. Effectively used all crewmembers. Gave clear, concise crew instructions.

A4.3.9.2. **Q-.** Coordinated satisfactorily with other crewmembers/mission personnel. Some instructions were not clear and concise.

A4.3.9.3. **U.** Failed to coordinate with crewmembers/mission personnel. Did not give clear and concise instructions. Failed to utilize resources causing degradation of the mission.

A4.3.10. Area B-10: Communication Procedures.

A4.3.10.1. **Q.** Radio and intra-cockpit communications were concise, accurate and effectively used to direct maneuvers or describe the tactical situation.

A4.3.10.2. **Q-** Minor terminology errors or omissions occurred, but did not significantly detract from situational awareness, mutual support or mission accomplishment. Extraneous comments over primary or secondary radios presented minor distractions.

A4.3.10.3. **U.** Radio communications over primary/secondary radios were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from mutual support, situational awareness or mission accomplishment.

A4.3.11. Area B-11: Knowledge of Directives.

A4.3.11.1. **Q.** Demonstrated thorough knowledge of aircraft systems, limitations and performance characteristics.

A4.3.11.2. **Q-.** Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Demonstrated deficiencies either in depth of knowledge or comprehension.

A4.3.11.3. **U.** Demonstrated unsatisfactory knowledge of aircraft systems, limitations or performance characteristics.

A4.4. Area C: Qualification (Loadmaster).

A4.4.1. Area C-1: Preflight.

A4.4.2. Area C-2: Aircraft Configuration.

A4.4.3. Area C-3: Load Planning/Inspection.

A4.4.4. Area C-4: Hazardous Material.

A4.4.5. Area C-5: Onload/Offload Procedures.

A4.4.6. Area C-6: Winching Procedures.

A4.4.7. Area C-7: Tiedown/Restraint.

A4.4.8. Area C-8: Passenger Handling/Briefing.

A4.4.9. Area C-9: Weight and Balance.

A4.4.10. Area C-10: Anti-Hijacking.

A4.4.11. Area C-11: Border Clearance.

A4.4.12. Area C-12: Predeparture and Inflight Duties.

A4.4.13. Area C-13: Scanner Duties.

A4.4.14. Area C-14: Engine Running Onload/Offload.

A4.4.15. The following criteria must be used in determining a grade for operation of applicable aircraft procedures (A4.4.1.-A4.4.14.) as prescribed in the flight manual, supplementary/partial manuals, and other governing directives..

A4.4.15.1. **Q.** Procedures required by the flight manual, checklist, and applicable directives were accomplished without omissions or deviations which would detract from the overall efficient conduct of the mission.

A4.4.15.2. **Q-.** Procedures required by the flight manual, checklist, and applicable directives were accomplished with omissions or deviations which detracted from the overall efficient conduct of the mission. Performance or knowledge was the minimum acceptable and indicated a need for additional training.

A4.4.15.3. **U.** Procedures or checklist items required by the flight manual or applicable directives were accomplished with major omission, deviations, or errors. Performance or knowledge was unacceptable.

A4.4.16. Area C-15: Post Mission Duties.

A4.4.17. Area C-16: Oxygen.

A4.4.18. Area C-17: Ramp and Door.

A4.4.19. Area C-18: Restraint Rail/Roller Conveyor.

A4.4.20. Area C-19: APU/External Power (*If Applicable.*)

A4.4.21. Area C-20: Aircraft Loading Limitations.

A4.4.22. Area C-21: Emergency Equipment.

A4.4.23. The following criteria must be used in determining a grade for operation of applicable aircraft systems and equipment (A4.4.15.-A4.4.21.) as prescribed in the flight manual, supplementary/partial manuals, and other governing directives. This includes the individual's knowledge and analysis of equipment malfunctions with proper corrective action.

A4.4.23.1. **Q.** Demonstrated and/or verbally explained system equipment operation, component location, and limitations with only minor discrepancies which did not detract from mission effectiveness.

A4.4.23.2. **Q-.** Demonstration and/or explanation of system/equipment adequate but indicated a definite need for additional study and training.

A4.4.23.3. **U.** Knowledge of system/equipment was unacceptable.

A4.5. Area C: Qualification (Boom Operator).

A4.5.1. Area C-1: Preflight.

A4.5.1.1. **Q.** Examinee reported with a complete and current flight manual and all professional equipment. Complied with command and local directives. No deviations from flight manual were noted. Fully knowledgeable of aircraft weight and balance and pertinent aircraft forms. Accurately completed and recorded aircraft data.

A4.5.1.2. **Q-.** Made errors when computing weight and balance. No errors great enough to preclude safe mission accomplishment.

A4.5.1.3. **U.** Made significant errors in computing weight and balance. Not knowledgeable of aircraft forms and aircraft data.

A4.5.2. Area C-2: Pretakeoff.

A4.5.2.1. **Q.** Followed current flight manual procedures with no discrepancies or omissions.

A4.5.2.2. **Q-.** Deviations from current flight manual procedures were noted.

A4.5.2.3. **U.** Flight manual not used. Numerous errors jeopardizing safety observed.

A4.5.3. Area C-3: Takeoff and Climb.

A4.5.3.1. **Q.** Coordinated, smooth operation. Followed all procedures as outlined in the flight manual.

A4.5.3.2. **Q-.** Moderate knowledge of all procedures. Deviations to flight manual procedures were observed.

A4.5.3.3. **U.** Poor knowledge of procedures. Unaware of flight manual procedures.

A4.5.4. Area C-4: Preparation for Contact.

A4.5.4.1. **Q.** Followed flight manual procedures. Demonstrated complete knowledge of refueling system configuration. Completed all checklist items.

A4.5.4.2. **Q-.** Followed established procedures with deviations which would not or did not affect the operation.

A4.5.4.3. **U.** Failed to accomplish required procedures. Unaware or unable to prepare for contact.

A4.5.5. Area C-5: Normal Refueling Procedures.

A4.5.5.1. **Q.** Smooth, positive control of the boom. Adhered to flight manual procedures. Examinee was constantly aware of operating limitations.

A4.5.5.2. **Q-.** Operation with deviations. Allowed receiver to approach the operating limit, but did not exceed the limit.

A4.5.5.3. **U.** Unable to operate boom. Damaged receiver aircraft. Unable to deliver fuel to receivers due to operator error.

A4.5.6. Area C-6: Post Refueling.

A4.5.6.1. **Q.** Accomplished all checks according to flight manual procedures.

A4.5.6.2. **Q-.** Accomplished checks with deviations from established procedures.

A4.5.6.3. **U.** Failed to accomplish required checks. Omitted required procedures.

A4.5.7. Area C-7: Descent and Landing.

A4.5.7.1. **Q.** Coordinated, smooth operation. Followed all procedures as outlined in the flight manual.

A4.5.7.2. **Q-.** Deviations of procedures prescribed in the flight manual were noted. Individual requires training to return to qualified standards.

A4.5.7.3. **U.** Significant deviations from required procedures. Unaware of need to accomplish procedures.

A4.5.8. Area C-8: Emergency Equipment.

A4.5.8.1. **Q.** Demonstrated and/or verbally explained system equipment operation, component location, and limitations with only minor discrepancies which did not detract from mission effectiveness.

A4.5.8.2. **Q-.** Demonstration and/or explanation of system/equipment adequate but indicated a definite need for additional study and training.

A4.5.8.3. **U.** Knowledge of system/ equipment was unacceptable.

A4.6. Area C: Qualification Procedures/Criteria (Flight Engineer).

A4.6.1. Area C-1: Exterior inspection.

A4.6.2. Area C-2: Interior inspection.

A4.6.3. Area C-3: Before start/starting engines checks.

A4.6.4. Area C-4: Before taxi/taxi checks.

A4.6.5. Area C-5: Engine run-up/before takeoff checks.

A4.6.6. Area C-6: Lineup/takeoff.

A4.6.7. Area C-7: After takeoff/climb.

A4.6.8. Area C-8: Cruise.

A4.6.9. Area C-9: Descent and Landing.

A4.6.10. Area C-10: After Landing/Postflight.

A4.6.11. The following criteria will be used to evaluate qualification procedures identified in paragraph A4.6.1. – A4.6.10.

A4.6.11.1. **Q.** Procedure required by the flight manual, checklist, and applicable directions were accomplished with no omissions or deviations which detracted from the overall efficient conduct of the mission.

A4.6.11.2. **Q-.** Procedures required by the flight manual, checklists, and applicable directives were accomplished with omissions or deviations which detracted from the overall efficient conduct of the mission. Performance or knowledge was the minimum acceptable and indicated a need for additional study and/or training.

A4.6.11.3. **U.** Procedures or checklist items required by the flight manual or applicable directives were accomplished with major omissions, deviations, or errors. Performance or knowledge was unacceptable.

A4.6.12. Area C-11: Engines/auxiliary power unit.

A4.6.13. Area C-12: Fuel.

A4.6.14. Area C-13: Electric.

A4.6.15. Area C-14: Hydraulic.

A4.6.16. Area C-15: Flight controls.

A4.6.17. Area C-16: Air conditioning/pressurization.

A4.6.18. Area C-17: Anti-ice/de-ice.

A4.6.19. Area C-18: Windows/doors/hatches.

A4.6.20. Area C-19: Radar.

A4.6.21. Area C-20: Oxygen.

A4.6.22. Area C-21: Fire protection/detection.

A4.6.23. Area C-22: Radios/communications.

A4.6.24. Area C-23: Instruments/lighting.

A4.6.25. Area C-24: Miscellaneous equipment.

A4.6.26. Area C-25: Emergency equipment.

A4.6.27. The following criteria will be used to evaluate operation and knowledge of system equipment. This includes general knowledge of use, location, and required operational procedures.

A4.6.27.1. **Q.** Demonstrated and/or verbally explained system equipment operation, component location, and limitations with only minor discrepancies which did not detract from mission effectiveness.

A4.6.27.2. **Q-.** Demonstration and/or explanation of system/equipment adequate but indicated a definite need for additional study and training.

A4.6.27.3. **U.** Knowledge of system/ equipment was unacceptable.

A4.7. Area D: Instructor (All crew positions).

A4.7.1. Area D-1: Instructional Ability.

A4.7.1.1. **Q.** Demonstrated ability to communicate effectively. Provided appropriate corrective guidance when necessary. Planned ahead and made timely decisions.

A4.7.1.2. **Q-.** Instruction was essentially correct with some deviations or omissions. Problems in communications or analysis did not degrade effectiveness of instruction.

A4.7.1.3. **U.** Inability to effectively communicate with the upgradee. Did not provide corrective action where necessary. Did not plan ahead or anticipate upgradee problems.

A4.7.2. Area D-2: Briefing/Debriefing.

A4.7.2.1. **Q.** Briefings were well organized, accurate, and thorough. Reviewed upgradee's present level of training and defined mission events to be performed. Excellent ability during critique to reconstruct the

flight, and provide corrective guidance where appropriate. Completed all training documents in accordance with prescribed directives. Training syllabi grade reflected actual performance of upgradee relative to standard. Prebriefed the upgradee's requirements for next mission.

A4.7.2.2. **Q-** Minor errors or omissions in briefings, critique, and/or training documents that did not affect upgradee progress.

A4.7.2.3. **U.** Briefings were marginal or nonexistent. Did not review upgradee's training folder or past performance. Failed to adequately critique upgradee or provide complete mission analysis. Training syllabi grade did not reflect actual performance of upgradee. Comments in training folder were incomplete. Strengths and weaknesses were not identified. Overlooked or omitted major discrepancies.

A4.7.3. Area D-3: Demonstration and Performance.

A4.7.3.1. **Q.** Effectively demonstrated procedure and techniques on the ground and in flight. Demonstrated thorough knowledge of aircraft systems, procedures, and all applicable publications and regulations.

A4.7.3.2. **Q-** Minor discrepancies in the "Q." criteria that did not affect safety or adversely affect upgradee progress.

A4.7.3.3. **U.** Did not demonstrate correct procedure or technique. Insufficient knowledge about aircraft systems, procedures, and/or proper source material.